

Grade One Mathematics

The first-grade standards introduce the idea of fractions and continue the development of sorting and patterning skills. In first grade, students will learn the basic addition facts through the fives table and the corresponding subtraction facts. Students also will draw and describe certain two-dimensional figures and use nonstandard units to measure length and weight. While learning mathematics, students will be actively engaged, using concrete materials and appropriate technologies such as calculators and computers. However, facility in the use of technology shall not be regarded as a substitute for a student's understanding of quantitative concepts and relationships or for proficiency in basic computations.

Mathematics has its own language, and the acquisition of specialized vocabulary and language patterns is crucial to a student's understanding and appreciation of the subject. Students should be encouraged to use correctly the concepts, skills, symbols, and vocabulary identified in the following set of standards.

Problem solving has been integrated throughout the six content strands. The development of problem-solving skills should be a major goal of the mathematics program at every grade level. Instruction in the process of problem solving will need to be integrated early and continuously into each student's mathematics education. Students must be helped to develop a wide range of skills and strategies for solving a variety of problem types.

Number and Number Sense

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| <p>1.1 The student will count objects in a given set containing between 10 and 100 objects and write the corresponding numeral.</p> <p>1.2 The student will group concrete objects by ones and tens to develop an understanding of place value.</p> <p>1.3 The student will count by twos, fives, and tens to 100.</p> <p>1.4 The student will recognize and write numerals 0 through 100.</p> <p>1.5 The student will identify the ordinal positions first through tenth, using an ordered set of objects.</p> <p>1.6 The student will identify and represent the concepts of one-half and one-fourth, using appropriate materials or a drawing.</p> <p>1.7 The student will count a collection of pennies, a collection of nickels, and a collection of dimes whose total value is 100 cents or less.</p> | <p>analog or digital clock.</p> <p>1.12 The student will use nonstandard units to measure length and weight.</p> <p>1.13 The student will compare the volumes of two given containers by using concrete materials (e.g., jelly beans, sand, water, and rice).</p> <p>1.14 The student will compare the weight of two objects using a balance scale.</p> |
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Geometry

- 1.15 The student will describe the proximity of objects in space (near, far, close by, below, up, down, beside, and next to).
- 1.16 The student will draw and describe triangles, squares, rectangles, and circles according to number of sides, corners, and square corners.
- 1.17 The student will identify and describe objects in his/her environment that depict geometric figures: triangle, rectangle, square, and circle.

Computation and Estimation

- 1.8 The student will recall basic addition facts, sums to 10 or less, and the corresponding subtraction facts.
- 1.9 The student will solve story and picture problems involving one-step solutions, using basic addition and subtraction facts.

Measurement

- 1.10 The student will identify the number of pennies equivalent to a nickel, a dime, and a quarter.
- 1.11 The student will tell time to the half-hour, using an

Probability and Statistics

- 1.18 The student will investigate, identify, and describe various forms of data collection in his/her world (e.g., recording daily temperature, lunch count, attendance, and favorite ice cream).
- 1.19 The student will interpret information displayed in a picture or object graph using the vocabulary: more, less, fewer, greater than, and less than.

Patterns, Functions, and Algebra

- 1.20 The student will sort and classify concrete objects according to one or more attributes, including color, size, shape, and thickness.
- 1.21 The student will recognize, describe, extend, and create a wide variety of patterns, including rhythmic, color, shape, and numeric. Patterns will include both growing and repeating patterns. Concrete materials and calculators will be used by students.